### **ENVIRONMENTAL CHEMISTS**

Date of Report: January 8, 1996 Date Received: January 3, 1996

Project: Metro Self Monitor, PO #M51793 Date Samples Extracted: January 4, 1996 Date Extracts Analyzed: January 5, 1996

## RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC Samples Processed Using Method 3005

Results Reported as mg/L (ppm)

Sample ID	<u>Chror</u>	mium Coppe	<u>er Nicke</u>	<u>Zinc</u>
M51793	0.4	49 0.81	0.50	0.10
Method Blank	<0.0	05 <0.05	< 0.05	< 0.05

### **ENVIRONMENTAL CHEMISTS**

Date of Report: January 8, 1996 Date Received: January 3, 1996

Project: Metro Self Monitor, PO M51793

## QUALITY ASSURANCE RESULTS FOR CHROMIUM, COPPER, NICKEL, AND ZINC Samples Processed Using Method 3005

Laboratory Code: 65466 (Duplicate)

				Relative	The state of the s
	Reporting	Sample	Duplicate	Percent	Acceptance
Analyte:	Units	Result	Result	Difference	Criteria
Chromium	mg/L (ppm)	0.69	0.70	1 1 1	0-20
Copper	mg/L (ppm)	0.71	0.83	16	0-20
Nickel	mg/L (ppm)	0.41	0.43	5	0-20
Zinc	mg/L (ppm)	0.07	0.11	44 a	0-20
		<b>0.01</b>	V		9 20

Laboratory Code: 65466 (Matrix Spike)

	Reporting	Spike	Sample	% l	Recovery	Acceptanc	Relative e Percent
Analyte:	Units	Level	Result	MS	MŠD	Criteria	Difference
Chromiun	n mg/L (ppm)	5	0.69	104	104	80-120	0
Copper	mg/L (ppm)	5	0.71	95	96	80-120	1
Nickel	mg/L (ppm)	10	0.41	106	104	80-120	2
Zinc	mg/L (ppm)	5	0.07	112	111	80-120	1

Laboratory Code: Spike Blank

						Relative
	Reporting	Spike	% F	Recovery	Acceptance	Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	107	108	80-120	1
Copper	mg/L (ppm)	5	100	102	80-120	2
Nickel	mg/L (ppm)	10	108	109	80-120	1
Zinc	mg/L (ppm)	5	114	114	80-120	0

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3072 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

FORMS/COC

# SAMPLE CHAIN OF CUSTODY

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### **ENVIRONMENTAL CHEMISTS**

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

January 8, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on January 3, 1996 from your Metro Self Monitor, PO #M51793 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

keh

Enclosures

FAX: 382-7335 ACU0108R.DOC

### **ENVIRONMENTAL CHEMISTS**

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

January 8, 1996

### INVOICE # 96ACU0108-2 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M51793: Results of testing requested by Gerry Thompson, Project Manager for material submitted on January 3, 1996.

1 process water	sample analyzed for	or Chromium	, ATRAGAR		
Copper, Nickel,	and Zinc @ \$65 pe	er sample		<b>\$</b>	65.00
Amount Due	Miles and the specified as	and the second s	an atas ata	. \$	65.00